

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

28 November 2003

Re:  
Application No. 08/579,395  
Filing Date: 12/27/1995  
Examiner: Karlsen, Ernest F.  
Art Unit: 2829  
William H. Swain, inventor

PETITION TO THE COMMISSIONER FOR PATENTS

Greetings,

I have met every deadline, yet this case is nearly eight (8) years old. This case was made "Special" on 26 November 2002, yet I received no written Examiner's answer to my Appeal brief to the board of Patent Appeals for nearly seven (7) months. Then on 21 November 2003 I received a fourth (4th) requirement to restrict which acts to further delay my appeal to the board.

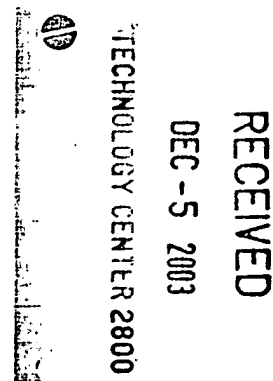
I think I need your assistance if I am to get a well deserved Patent on method and means for building more accurate instruments for measurement and control.

The Invention

*William H. Swain 11-28-03*

By the Grace of God I discovered that some sensors for clamp-on direct current ammeters had a 2 to 1 or more change in signal to noise ratio (SNR) when the magnitude of an operating parameter was changed, i.e., modulated. This is the Genus from which two species are derived.

This is illustrated by Figure 5 which shows data measured using 5 inch diameter aperture clip #88. It is on page 58 of my 1995 Application.



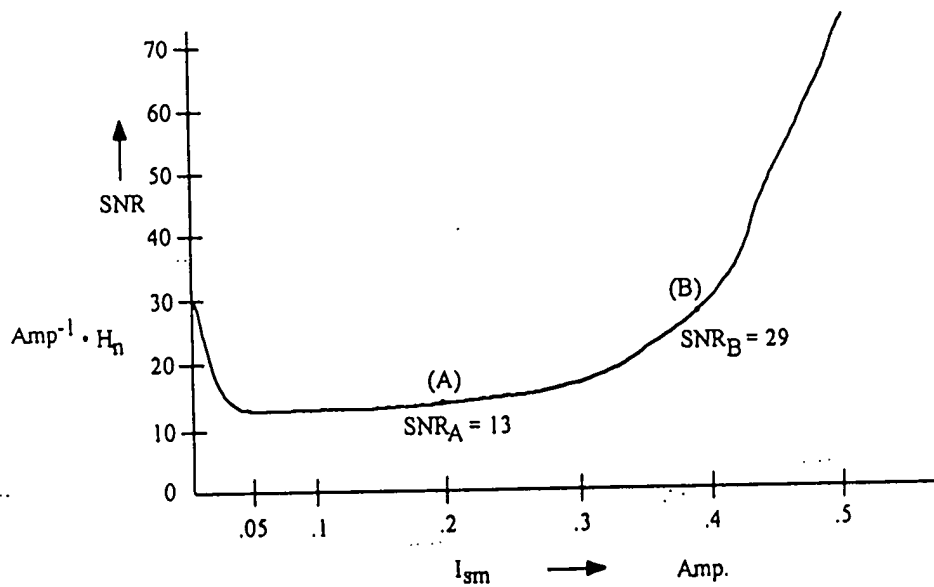


Figure 5  
Signal to Noise Ratio (SNR) for Non-Uniform Field  $H_n$   
vs.  
Operating Parameter  $I_{sm}$   
for  
5" dia. aperture clip #88 in SN 2336

$$SNR = \frac{\frac{\delta V}{\delta I}}{\frac{\delta V}{\delta N}} \left\{ \begin{array}{l} \text{output} \\ \text{input} \\ \text{output} \\ \text{noise} \end{array} \right.$$

### Primary Teaching

The primary teaching of my 1995 Application appears in part on page 11; line 11-15.

### DISCOVERY

The inventor discovered that the output  $V$  of many Swain Meter clamps was a lot less sensitive (1/2 to 1/3 in some sensors) to a change in the intensity of a non-uniform magnetic field  $H_n$  when the magnitude of an operating parameter  $I_{sm}$  was doubled or tripled. And the sensitivity (gain) to a change in signal input current  $I$  stayed constant to within a few percent.

This Discovery is illustrated on 1995 Figure 4 which shows a normalized measurement of 5" clip #88. Figure 4 is on page 57 of my 1995 Application.

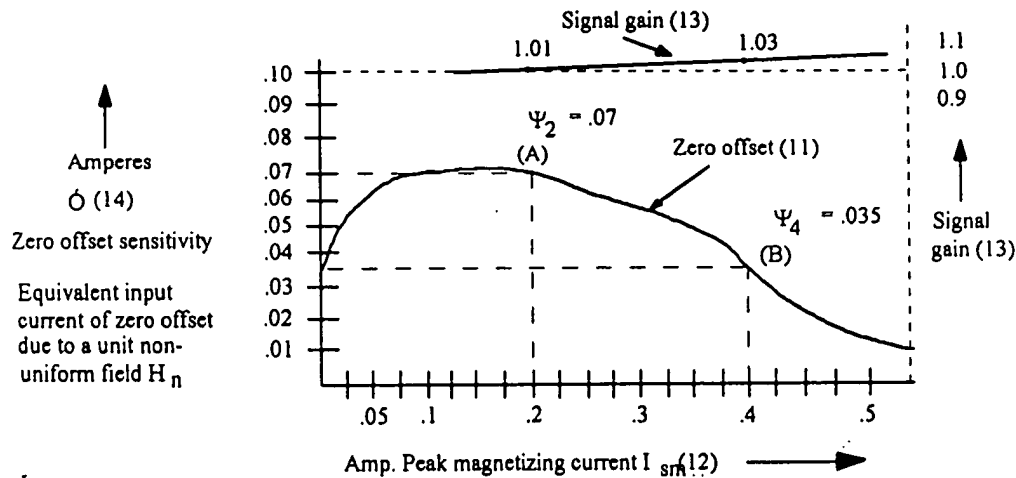


Fig. 4  
Normalized Signal Gain (g) vs.  $I_{sm}$   
and  
Normalized Zero Offset from  $H_n$  vs.  $I_{sm}$   
for  
Five inch diameter aperture sensor #88.

This Discovery was applied so as to improve the accuracy in the presence of noise of species "Better SNR" ammeters or provide near cancellation of noise with the species "Combiner". It was found that the sensor (clip) had to have a good "Essential Characteristic". This is stated on 1995 page 11, line 16-22.

#### Essential Characteristic

Fig. 4 shows the approximate sensitivities for a five inch diameter aperture clip #88. This is an illustration of a sensor having the essential characteristic:

Firstly, the signal gain  $g$  (13) sensitivity to signal input  $I$  (7) is constant within a few percent as an operating parameter  $I_{sm}$  (12) changes from 0.18 A to 0.5 Amp peak; and

Secondly, the zero offset (11) sensitivity to a unit change in intensity of a non-linear magnetic field  $H_n$  (8) is reduced to well under half over the same range of  $I_{sm}$  (12).

#### Basic Concept and Requirement to Restrict

The basic concept of this invention includes a sensor based on the above primary teaching plus means to properly control the magnitude of the operating parameter. It is included in generic claims 45 plus 63-66. The basic concept is also in one form or another in each one of claims 32-62. So no one claim is patentably distinct from another. Thus the present requirement to restrict is as improper as the three (3) previous requirements<sup>1</sup> which were withdrawn by the Examiner.

<sup>1</sup> The first three (3) requirements to restrict were in examiner's actions dated 21 February 1997, 28 January 1999, and 31 October 2001.

## Key Events

The Primary Examiner, Mr. Ernest Karlsen, cited three sets of references which he asserted anticipated my invention. On 29 January 03 he made final rejection of all pending claims 32-66, even though I made a showing that the cited references did not teach or imply my "Basic Concept", nor did they teach my "Discovery" or "Essential Characteristic".

Some seven (7) months ago I filed notice of appeal, paid fees, and my 148 page brief<sup>2</sup> was filed on 14 April 2003. The Examiner's first written answer, his action of 18 November 2003, is not the expected review of my brief.

## ANSWER

MPEP 1208  
Page 1200-15

The examiner should furnish the appellant with a written statement in answer to the appellant's brief within 2 months after the receipt of the brief by the examiner.

The answer should contain a response to the allegations or arguments in the brief and should call attention to any errors in appellant's copy of the claims. Grounds of rejection not argued in the examiner's answer are usually treated as having been dropped, but may be considered by the Board if it desires to do so.

Instead, it is a fourth (4th) requirement to restrict<sup>1</sup>.

It is similar to the others, arguing that several forms of the invention presented in my disclosure of 27 December 1995 are patentably distinct. My response to this action, dated November of 2003, will again argue that all claims and all forms of the invention of 27 December 1995 include some form of the basic concept, i.e., the "Discovery", the "Essential Characteristic", plus means to properly control the magnitude of the operating parameter, and so are not patentably distinct. The invention is one.

At the top of page 2 of 11-18-03 the Examiner alludes to issues in my brief which are petitionable. I agree that issues 6.1 - 6.1.3 (presented below) are petitionable, and herewith request the Commissioner to resolve these and withdraw them from my Appeal Brief filed 24 April 2003.

The following is a copy of page 43 of my brief<sup>2</sup> dated 22 April 03.

### 6 Issues Summarized

6.1 The first three issues are related. Argument is given in section 8.1, beginning on page 47.

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<sup>2</sup> I enclose a copy of my brief mailed on 22 April 03.

6.1.1 Whether 3 year old generic method and apparatus claims 63-66, never having been examined on merit, may properly be finally rejected before examination on merit.

6.1.2 Whether claims 32-66, excepting only claim 45, can properly be finally rejected on the basis of discussion of only claim 45 when none have been examined on merit since my 148 page traverse of 6 grounds for rejection on 24 March 2000.

6.1.3 Whether the Examiner erred when he asserted, contrary to the record:

Examiner 1-29-03      By Applicant's admission in Paper No. 28 the fate of claim 45 determines the fate of all  
Page 3, Line 3-4      claims so only claim 45 is discussed.

I did not so admit.

Then only issues 6.2 and 6.3 remain in the Appeal. The following are also shown on page 43 of my Brief.

6.2 Whether generic apparatus claim 45, fully viewed in the light of the disclosure, has elements not found in any one of cited references Lee, Moser et al, Hubbard, Sweeny, or Swain, Re: 35 U.S.C. 102(b).

Argument is given in section 8.45.

6.3 Whether generic method claim 66, fully viewed in the light of the disclosure, has elements not found in any one of cited references Lee, Moser et al, Hubbard, Sweeny, or Swain, Re: 35 U.S.C. 102(b).

Argument is given in section 8.66.

#### Action Requested

I respectfully request the Commissioner to:

6.1.1 cause an examination on merit to be made of 3 year old generic method and apparatus claims 63-66. These have never been examined on merit with results sent to me before final rejection.

6.1.2 cause an examination on merit to be made of claims 32-66, excepting only claim 45. None have been examined on merit with results sent to me since my 148 page traverse of 6 grounds for rejection of 24 March 2000.

6.1.3 Assist the Examiner to see that he erred when he asserted, contrary to the record.

Examiner 1-29-03      By Applicant's admission in Paper No. 28 the fate of claim 45 determines the fate of all  
Page 3, Line 3-4      claims so only claim 45 is discussed.

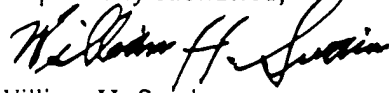
I did not so admit.

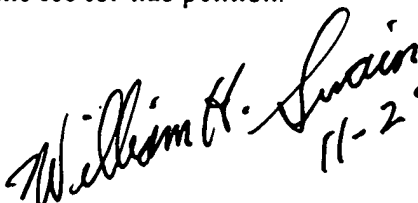
6.5 Assist the Examiner to see that the present requirement to restrict should be vacated.

6.4 Cause my appeal of 24 April 03 to proceed.<sup>3</sup> This case was made special by paper No. 33 on 26 November 2002.

I enclose our check # 12807 for \$130 to cover the fee for this petition.

Respectfully submitted,

  
William H. Swain  
Inventor

  
11-28-03

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<sup>3</sup> My request that my Appeal proceed is based on 35 U.S.C. 134 and 37 CFR 1.191.

MPEP 2105  
Page 1200-2

*35 U.S.C. 134. Appeal to the Board of Patent Appeals and Interferences.*

An applicant for a patent, any of whose claims has been twice rejected, may appeal from the decision of the primary examiner to the Board of Patent Appeals and Interferences, having once paid the fee for such appeal.

*37 CFR 1.191. Appeal to Board of Patent Appeals and Interferences.*

(a) Every applicant for a patent or for reissue of a patent, or every owner of a patent under reexamination, any of the claims of which have been twice rejected, or who has been given a final rejection (§ 1.113), may, upon the payment of the fee set forth in § 1.17(e), appeal from the decision of the examiner to the Board of Patent Appeals and Interferences within the time allowed for response.

Claims 32-66 were finally rejected on 1-29-03.

Claims 32-66 were rejected on 9-28-02.

Claims 32-62 were rejected on 1-24-00.

I timely paid the fees and filed notice of appeal on 3/31/03. I timely paid the fee and my brief was filed on 4-24-03. The petitionable matter has been withdrawn so the Appeal can go foreword. I see no reference to a requirement to restrict, nor do I see a withdrawal of Final Rejection, as basis for withdrawing or delaying my Appeal.

Therefore, I respectfully request that the Commissioner cause my Appeal to go foreword.